

Flexible High Energy Lidar Transmitter for Remote Gas and Wind Sensing, Phase I

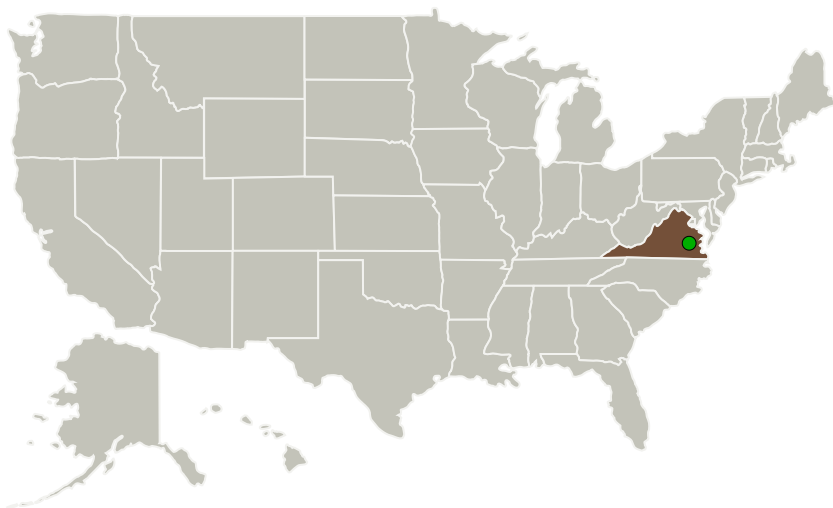
Completed Technology Project (2011 - 2011)



Project Introduction

Fibertek proposes a high energy and flexible operation 1570 nm pulsed lidar transmitter for airborne and space-based remote CO₂ gas and doppler wind sensing. The lidar system is expected to operate with 5 mJ energy at 1 kHz repetition rate, and the pulse width will be adjustable from 20 ns to 1 microseconds. The proposed system is based on Fibertek's proprietary laser architecture that utilize state-of-the-art optical and RF analog and digital electronic component technologies.

Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
Fibertek, Inc.	Lead Organization	Industry	Herndon, Virginia
● Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations

Virginia

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Project Transitions

 **February 2011:** Project Start

 **September 2011:** Closed out

Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/138166>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Fibertek, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

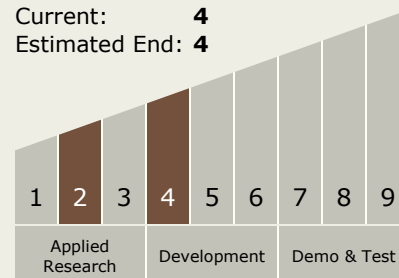
Mehmetcan Akbulut

Technology Maturity (TRL)

Start: 2

Current: 4

Estimated End: 4



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Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.5 Lasers

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System